

REMARKS

Claims 1-8, 23 and 24 were pending in the present application. Claims 10-22 and 25-27 were previously canceled, and claim 9 has been canceled herein. Claims 1, 2, 4-8 and 23 are amended, and claims 28-39 have been added herein. Therefore, claims 1-8, 23, 24 and 28-39 are currently pending. No new matter has been added. Applicants respectfully request reconsideration of the claims in view of the following remarks.

(1) The Examiner objected to the specification because of informalities in paragraph [0002]. These informalities are corrected herein per the Examiner's recommendations.

(2) Claim 4 and paragraphs [0041] and [0052] have been amended to correct an error in an equation. The correct form of the equation can be found on page 4 of the provisional specification in item 1 of section 4.

(3) The Examiner rejected claims 1-9, 23 and 24 under 35 U.S.C. § 101 because the claims are assertedly directed to a mathematical algorithm and are not limited to tangible embodiments. Applicant has amended independent claim 1 to clarify that the claim has a practical application and a tangible result.

Specifically, claim 1 recites "[a] method for computing distances between a received point for a tone received in a receiver" comprising "providing the computed distances to a decoder." Thus, the amendment to claim 1 makes clear that the claim has a practical application to a receiver, and that the claim provides a tangible result by providing computed distances to a decoder. Claims 2-8, 23 and 24 depend from claim 1. In view of the amendments to claim 1,

Applicants respectfully submit that claims 1-8, 23 and 24 comply with 35 U.S.C. § 101 and request withdrawal of the rejection.

(4) The Examiner rejected claims 1-9, 23 and 24 under 35 U.S.C. § 112, second paragraph, stating that it is unclear in claim 1 whether the result of a former step affects the latter or whether a latter step affects the former. Applicant has amended claim 1 to clarify the sequence of steps. Claims 2-8, 23 and 24 depend from claim 1. In view of the amendments to claim 1, Applicants respectfully submit that claims 1-8, 23 and 24 comply with 35 U.S.C. § 112, second paragraph, and request withdrawal of the rejection.

(5) The Examiner rejected claims 1 and 23 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 7,224,743 (“Holmes”); and the Examiner rejected claim 24 under 35 U.S.C. § 103(a) as being unpatentable over Holmes in view of U.S. Patent No. 6,594,319 (“Shaikh”). Applicants respectfully traverse these rejections.

Claim 1, as amended, recites “determining a first point on a grid nearest to the received point; [and] computing a second point closest to the received point inside a specified area after determining the first point.” The Examiner states on page 4 of the Office Action that Holmes inherently discloses

determining point $(I_0, 0)$, as a first point, on grid (I-channel axis) in order to obtain the I-coordinate (I_0) of the received point, the grid (I-channel axis) nearest to the received point in comparison with the grid (Q-channel axis), (the procedure of determining point $(I_0, 0)$ considered here equivalent with the limitation “determining a first point on a grid nearest to the received point”).

The Examiner further states that Holmes inherently discloses “computing to obtain a second point (0, 0) closest to the received point (I_0, Q_0) inside a specified area, (as shown in figure 12).” Office Action, page 4 (emphasis added).

The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *See* M.P.E.P. § 2112(IV), citing *In re Rijckaert*, 9 F.3d 1531, 1534, 28 U.S.P.Q.2d 1955, 1957 (Fed. Cir. 1993). “In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.” M.P.E.P. § 2112(IV), citing *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original). While the Examiner has asserted that a determination of a first point ($I_0, 0$) and a calculation of a second point (0,0) is implicitly disclosed by Holmes, the Examiner has not provided a basis in fact and/or technical reasoning to support this contention. Applicants further note that these points selected by the Examiner are nowhere to be found in Figure 12, and that there is nothing disclosed in the prior art suggesting that determining a first point on a grid nearest to the received point and computing a second point closest to the received point inside a specified area after determining the first point necessarily flows from Holmes.

Furthermore, Holmes does not teach or suggest a specified area in which a second point is computed. Applicants, therefore, respectfully submit that claim 1 is not anticipated by the prior art of record.

Claims 2-8, 23 and 24 depend from claim 1 and add further limitations. It is respectfully submitted that these dependent claims are allowable by reason of depending from an allowable claim as well as for adding new limitations.

(6) Claims 28-39 have been added to more comprehensively claim the invention as originally filed. No new matter has been added herein.

Applicants have made a diligent effort to place the claims in condition for allowance. However, should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone Applicants' Attorney, Steven Shaw, at 972-917-5137, so that such issues may be resolved as expeditiously as possible. No fee is believed due in connection with this filing. However, in the event that there are any fees due, please charge the same, or credit any overpayment, to Deposit Account No. 50-1065.

Respectfully submitted,

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Date

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